LESSON 4E—NARRATIVE: WHO IS AN ARCHAEOLOGIST WHO STUDIES ANCIENT SUBSISTENCE?

Steve Aaberg is an archaeologist who studies ancient subsistence.

Steve Aaberg is an archaeologist who specializes in the study of ancient subsistence. Steve studies plants, animals, and cooking methods used by ancient people. He grew up in Chester, Montana, and was interested in archaeology when he started college. During his studies and fieldwork, he noticed a lack of research on how Montana's prehistoric people used native plants. Since native plants held an interest for him, Steve decided to specialize in paleoethnobotany, the study of native plants used by ancient people.

Archaeologists know that plants were extremely important to the health and well-being of early people. Paleoethnobotany is a valuable tool in the interpretation of prehistoric subsistence. Steve's work as a paleoethnobotanist is to unearth and study plant remains found at archaeological sites. He determines which plants were used by ancient people and how they were prepared. Ancient people used native plants as food, as medicine, in ceremonies, and in industry for tools and weapons. Plant resources varied throughout the year; where prehistoric people settled and moved depended upon whether plants were available. Paleoethnobotany also provides information about specific activities at sites, as well as how sites were formed.

Steve's work focuses on prehistoric archaeology. He is most intrigued by the success of ancient hunter-gatherers in their interaction with the environment. Their stability and strength allowed the same basic lifestyle to survive for over eleven thousand years! Steve also uses ethnoarchaeology in his investigations. Ethnoarchaeology is the study of existing native cultures to apply their current knowledge to the study of the past. Steve works with modern-day Native Americans to learn more about ancient people.

Steve conducts his archaeological work through his business, Aaberg Cultural Resource Consulting Service, Billings, Montana. Most of his work is compliance archaeology, making sure that preservation laws are followed during land developments. He attended college at Montana State University, Bozeman, and at the University of California, Berkeley. Steve credits his professors, Dr. Les Davis and Dr. Tom Roll, of MSU, in teaching him the excitement and joy of archaeological fieldwork.

Steve has worked at hundreds of sites in Montana, Wyoming, North Dakota, and South Dakota. Each discovery he has made represents a piece in the puzzle of prehistoric lifeways in the Plains region. Steve has researched and published results on the Poverty Point Site in northern Louisiana. Poverty Point is one of the oldest and largest mound complexes in North America. Steve has also researched and published results on Teotihuacan, in central Mexico. Teotihuacan is one of the largest and oldest urban/city sites in the New World.

Steve's favorite Montana site is Barton Gulch, located in southwestern Montana near Dillon. Barton Gulch is one of the oldest sites in Montana, dated at 9,400 years old. Cooking features at the site demonstrate that prehistoric people had well-thought-out plans for preparing plant and animal remains. The patterned cooking hearths there represent one of the earliest examples of systematic plant use and preparation in the Northern Plains region.

The most exciting discoveries Steve has unearthed were at Barton Gulch. At that site, ecofacts of charred seeds, stems, spines, and other parts from thirty different plant species have been identified! They were recovered from a series of over one hundred cooking features. The ecofacts and features indicate that, at a very early time, prehistoric Montanans were using a variety of plants for various purposes. Steve hopes in the future to find a Montana site revealing evidence of plant use predating ten thousand years ago!

Steve's favorite methods of analysis are plant macrofossil and microfossil studies. Plant macrofossils are carbonized, or burned, plant remains such as seeds, stems, leaves, and roots. The best-preserved plant remains are those charred in cooking hearths. Plant microfossils are pollen, opalphytoliths, and starch grains that can only be seen with a microscope. Plants produce durable macrofossil and microfossil remains that are unchanged through time. By studying those remains, Steve and other paleoethnobotanists can identify the plants past people used and reconstruct the environments in which those people lived.

Steve says that the easiest part of his job is the fieldwork. It takes him to some remote and beautiful areas of Montana that he otherwise might not see. He also meets some very interesting Native Americans who are knowledgeable about historic and current plant use.

The most difficult part of his job is accepting the fact that some sites and areas will be disturbed or destroyed as Montana grows and develops. Although laws require study of historic and prehistoric sites before they are destroyed, it is still difficult to see those resources disappear.

When asked what he believes the future holds for archaeology, Steve responds: "I believe there will be an increase in our efforts to protect and preserve archaeological sites for future generations. Technical innovations to interpret the archaeological record will develop. Reconstructing past environments will be more important. Interpreting the way people interacted with their environment and one another will expand. For example, current research is presenting more evidence that prehistoric people entered the New World from various parts of the earth. This suggests North America may have been a 'melting pot' of cultures long, long ago. I believe archaeology will be a people's science. Knowledge about the past will be more accessible."

Steve suggests that, if you are interested in archaeology, you should study the natural sciences, such as biology, botany, geology, and soil science. In addition, he sends this message: "Young people informed about Montana's prehistory can do their part to discourage vandalism and looting of archaeological sites. You can encourage

your communities to protect archaeological sites when these nonrenewable resources are threatened by development."

In addition to his archaeological work, Steve enjoys playing the guitar, listening to blues and jazz music, and fly fishing. His family includes his mother Helen and his brother Philip. Students interested in archaeology can contact Steve at:

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Steve Aaberg (right) relies on the knowledge of Indian people to help him understand how plants might have been used in the prehistoric past. Steve worked with Salish elders Harriet Whitworth (left) and Felicity McDonald (middle background) during an ethnobotanical study on the Flying D Ranch near Bozeman, Montana. *Tom Cook, photographer, Montana Historical Society.*